

## Product datasheet for **AR09652PU-L**

### PKLR (47-574, His-tag) Human Protein

#### Product data:

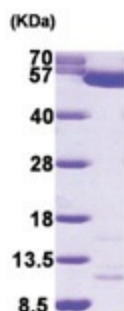
|                                       |   |
|---------------------------------------|---|
| Product Type:                         | Recombinant Proteins  |
| Description:                          | PKLR (47-574, His-tag) human recombinant protein, 0.25 mg   |
| Species:                              | Human   |
| Expression Host:                      | E. coli   |
| Expression cDNA Clone or AA Sequence: | <u>MGSSHHHHHH SSSLVPRGSH</u> MLTQELGTAF FQQQLPAAM ADTFLEHLCL LDIDSEPVAA RSTSIATIG PASRSVERLK EMIKAGMNIA RLNFSGHSHE YHAESIANVR EAVESFAGSP LSYPVVAIAL DTKGPEIRTG ILQGGPESEV ELVKGSQVLV TVDPAFRTRG NANTVWVDYP NIVRVVPVGG RIYIDDLGLIS LVVQKIGPEG LVTQVENGGV LGSRKGVNLP GAQVDLPGLS EQDVRDLRFV VEHGVDIVFA SFVRKASDVA AVRAALGPEG HGKIISKIE NHEGVKRFDE ILEVSDGIMV ARGDLGIEIP AEKVFLAQKM MIGRCNLAGK PVVCATQMLE SMITKPRPTR AETSDVANAV LDGADCIMLS GETAKGNFPV EAVKMQHAIA REAAAVYHR QLFEELRRAA PLSRDPTEVT AIGAVEAAFK CCAAAIIVLT TTGRSAQLLS RYRPRAAVIA VTRSAQAARQ VHLCRGVFPL LYREPPEAIW ADDVDRRVQF GIESGKLRGF LRVGDLVIVV TGWRPGSGYT NIMRVLSIS |
| Tag:                                  | His-tag   |
| Predicted MW:                         | 59.2 kDa  |
| Concentration:                        | lot specific  |
| Purity:                               | >90% by SDS - PAGE  |
| Buffer:                               | Presentation State: Purified<br>State: Liquid purified protein<br>Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl, 1 mM DTT, 10% glycerol  |
| Bioactivity:                          | Specific: > 0.1 unit/mg.<br>One unit will form 1.0 umol of phospho(enol)pyruvate to pyruvate per minute at pH 7.5 at 37°C.  |
|                                       | <b>Activity Assay</b>   |
|                                       | 1. Prepare a 1.45 ml reaction mixture into a suitable container.<br>- Reaction mixture: 100 mM Tris-HCl pH 7.5, 7.6 mM ADP, 15 mM MgCl <sub>2</sub> , 74 mM KCl, 0.2 mM Beta-NADH, 5.2 mM PEP, 0.025 units recombinant LDHA protein (cat. no. AR09387PU)  |
|                                       | 2. Add 50 ul of recombinant PKLR protein solution with various concentrations (0.5ug, 1ug)  |
|                                       | 3. Read the decrease in A340nm in kinetic mode for 10 minutes.  |
| Preparation:                          | Liquid purified protein   |



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|-----------------------------|---|
| <b>Protein Description:</b> | Recombinant human PKLR protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.   |
| <b>Storage:</b>             | Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.  |
| <b>Stability:</b>           | Shelf life: one year from despatch.   |
| <b>RefSeq:</b>              | <a href="#">NP_000289</a>   |
| <b>Locus ID:</b>            | 5313  |
| <b>UniProt ID:</b>          | <a href="#">P30613</a>  |
| <b>Cytogenetics:</b>        | 1q22  |
| <b>Synonyms:</b>            | PK1; PKL; PKRL; RPK   |
| <b>Summary:</b>             | The protein encoded by this gene is a pyruvate kinase that catalyzes the transphosphorylation of phosphoenolpyruvate into pyruvate and ATP, which is the rate-limiting step of glycolysis. Defects in this enzyme, due to gene mutations or genetic variations, are the common cause of chronic hereditary nonspherocytic hemolytic anemia (CNSHA or HNSHA). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008] |
| <b>Protein Families:</b>    | Druggable Genome  |
| <b>Protein Pathways:</b>    | Glycolysis / Gluconeogenesis, Insulin signaling pathway, Maturity onset diabetes of the young, Metabolic pathways, Purine metabolism, Pyruvate metabolism, Type II diabetes mellitus  |

### Product images:



15% SDS-PAGE (3ug)